

HOUSE JOINT RESOLUTION 796

By Johnson C

A RESOLUTION relative to the proposed germanium and gallium recovery and processing facility in Clarksville.

WHEREAS, germanium and gallium have been classified as "critical minerals" by two separate U.S. Executive Orders; and

WHEREAS, the U.S. government, a key consumer of germanium-dependent equipment and technology, is working to secure the domestic supply and protect supply chains of both minerals; and

WHEREAS, presently, the U.S. relies heavily on China for its supply of both products, and rapidly rising demand for germanium and gallium worldwide will continue to affect the global supply landscape; and

WHEREAS, global demand for germanium is forecast to increase 37 percent between 2020 and 2025; rising demand for electronics is expected to be a primary driver of such growth, in addition to an increase in the use of infrared and optical cable, particularly in the roll-out of 5G networks; and

WHEREAS, consumption of gallium is predicted to increase by a staggering 90 percent between 2020 and 2025; this dramatic increase will be driven by continued growth in demand for light-emitting diodes, 5G mobile devices, solar panels, electric vehicles, and wind turbines; and

WHEREAS, Middle Tennessee is the only location in the continental United States where germanium and gallium can be sourced; however, germanium and gallium produced in the U.S. currently must be exported for processing; and

WHEREAS, the proposed Nyrstar germanium and gallium recovery and processing plant in Clarksville would ensure domestic sourcing and production of two critical minerals required

for a range of specialized technologies developed and deployed by the federal government and U.S. tech industries; and

WHEREAS, the project would also increase the company's recovery and production levels of zinc, another federally designated critical mineral; and

WHEREAS, the Clarksville facility would use state-of-the-art technology to reclaim germanium and gallium by processing the residue in Nyrstar's production ponds; this process recovers germanium and gallium in dioxide form, and, after processing, the minerals can be used to create finished products; and

WHEREAS, it is estimated that 40 metric tons of germanium and 30 metric tons of gallium could be obtained from all three of Nyrstar's operations in Tennessee, which is equivalent to approximately 15 percent and 7 percent of global production of these minerals, respectively; and

WHEREAS, most importantly, the proposed Clarksville facility would produce as much as 80 percent of the U.S.'s germanium and gallium needs, thus enhancing national security, and the project has the potential to stimulate domestic manufacturing of finished products that the U.S. currently imports from China; and

WHEREAS, the project feasibility study indicates that germanium and gallium produced in Tennessee would be resilient to commodity price volatility, thus providing further assurance of domestic supply-chain security; and

WHEREAS, the proposed Clarksville plant is estimated to create twenty-five to thirty jobs during the construction phase and twenty full-time on-site positions once it is operational, in addition to supporting the current 600 employees at all three Tennessee sites; and

WHEREAS, to date, Nyrstar has borne the research and development and engineering costs for this estimated \$90 million capex project; the federal government's support is now

required to secure the initial capital investment and help move the project into its construction phase; now, therefore,

BE IT RESOLVED BY THE HOUSE OF REPRESENTATIVES OF THE ONE HUNDRED TWELFTH GENERAL ASSEMBLY OF THE STATE OF TENNESSEE, THE SENATE CONCURRING, that we strongly urge and request the members of the Tennessee Congressional delegation to support the proposed Nyrstar germanium and gallium recovery and processing facility in Clarksville.

BE IT FURTHER RESOLVED, that a certified copy of this resolution be transmitted to each member of Tennessee's delegation to the U.S. Congress.